

WM-GX35

SERVICE MANUAL



*US Model
Canadian Model
AEP Model
UK Model
E Model*

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	WM-AF605/BF605
Tape Transport Mechanism Type	MF-WMBF608

SPECIFICATIONS

Radio section

Frequency range
FM: 87.5 – 108 MHz
AM: 530 – 1,710kHz (US, Canadian)
AM: 531 – 1,602kHz (AEP, UK, E)
Antenna
FM: Headphones cord antenna
AM: Built-in ferrite bar antenna

Recording section

Recording system
4-track 2-channel stereo
Input
Microphone input (stereo minijack)
(PLUG IN POWER) sensitivity 0.77 mV for lower impedance microphone

Tape player section and general

Frequency response (DOLBY NR off)
40 Hz – 15 kHz (with the PB EQ selector set to NORMAL or CrO₂/METAL)
Output
Headphones (stereo minijack)
load impedance 8 – 300Ω
Power output
For the United Kingdom and other European countries:
10 mW + 10 mW at DC operation, 32Ω
For other countries:
5 mW + 5 mW at DC operation, 16Ω

Power requirements

1.5 V DC
One or two R6 (size AA) batteries
DC IN 1.5 V jack accepts:
• Sony AC-D1M AC power adaptor (not supplied) available in the United Kingdom for use on 240 V AC, 50 Hz
available in US, Canada for use on 120V AC, 60Hz
available in other European countries for use on 220 V AC, 50 Hz
available in other countries for use on 100 – 120 V AC or 220 – 240 V AC, 50 or 60 Hz
• Sony DCC-70 (not supplied) for use with 12 V car battery

Battery life (hours)

Battery	SONY AM3(N) × 1	SONY AM3(N) × 2
Playback	Approx. 8	Approx. 18
Radio reception	Approx. 30	Approx. 70
Recording with microphone	Approx. 6	Approx. 15
Recording from the built-in radio	Approx. 6	Approx. 14

For maximum performance we recommend the use of alkaline batteries.

– continued on next page –

RADIO CASSETTE-CORDER
SONY®

Dimensions

Approx. 90.5 × 120.3 × 40.3 mm (w/h/d)
(3 5/8 × 4 3/4 × 1 5/8 inches)
incl. projecting parts and controls

Weight

Approx. 275g (9.7 oz.) incl. two batteries and other accessories

Accessories supplied

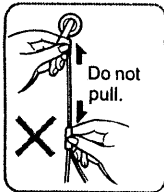
Microphone (1) Microphone stand (1) Belt clip (1)
For the United Kingdom and other European countries
Stereo headphones (open-air type, 1)
For other countries
Stereo earphones (open-air type, 1)

Ear adaptors are attached on the stereo earphones. If the earphones do not fit your ears, detach the ear adaptors.



Note on stereo earphones

Put the cord behind your neck. The knot cannot be moved.



Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Optional accessories

AC power adaptor AC-D1M
Car battery cord DCC-70

Note

If a car battery cord or an AC power adaptor not manufactured by Sony is used, a fuse must be installed in the battery cord or the adaptor, and the polarity of the plug must be as illustrated.

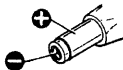
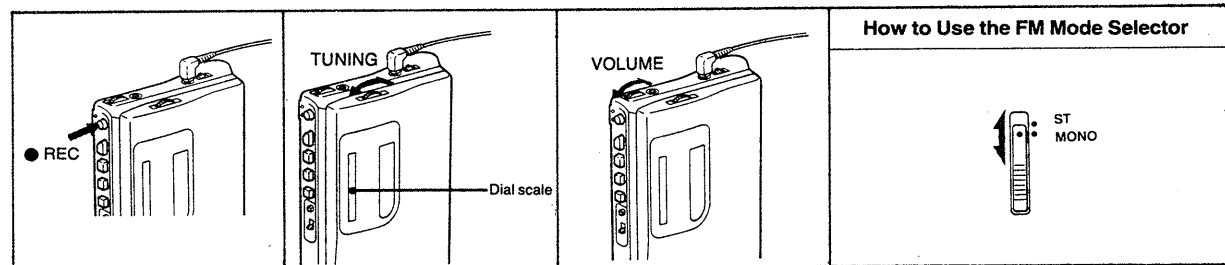
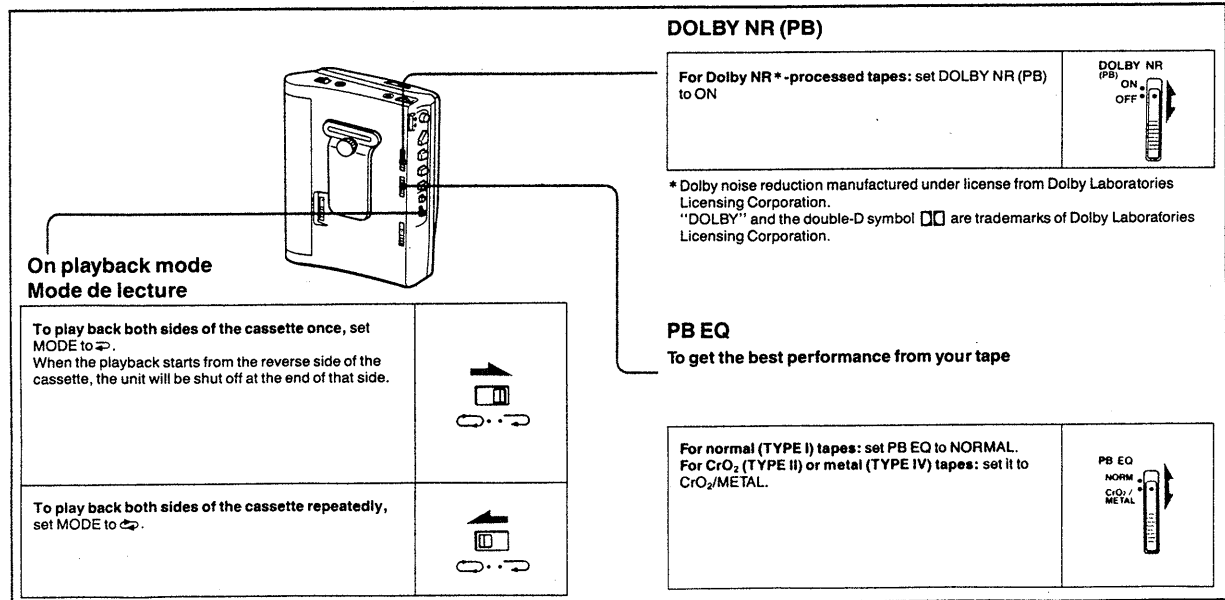
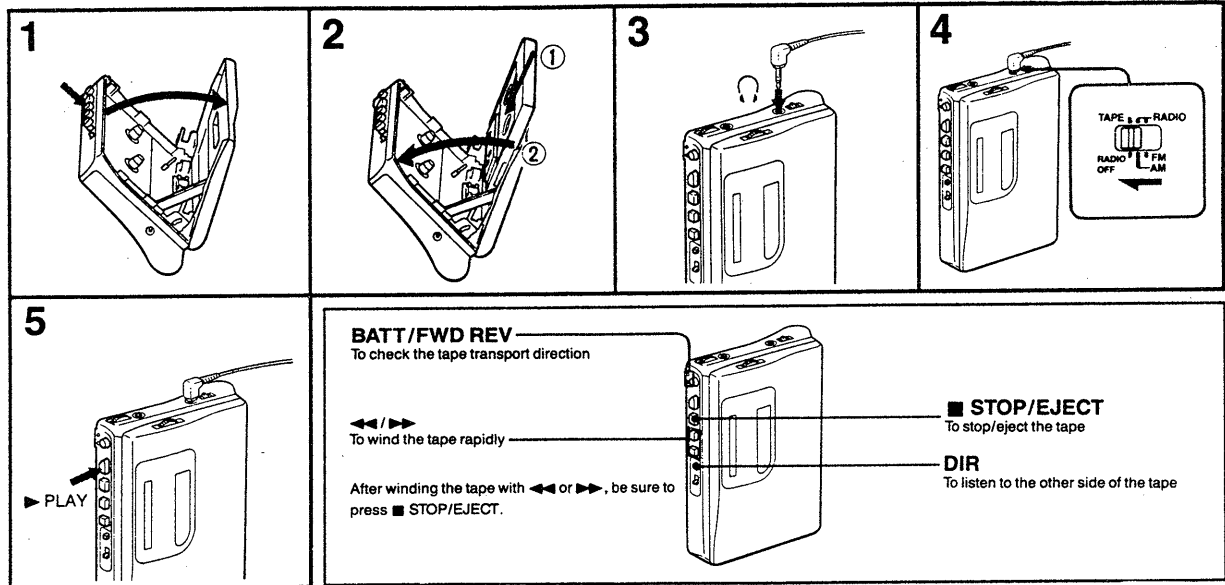


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This section is extracted from instruction manual.

SECTION 1 GENERAL



SECTION 2

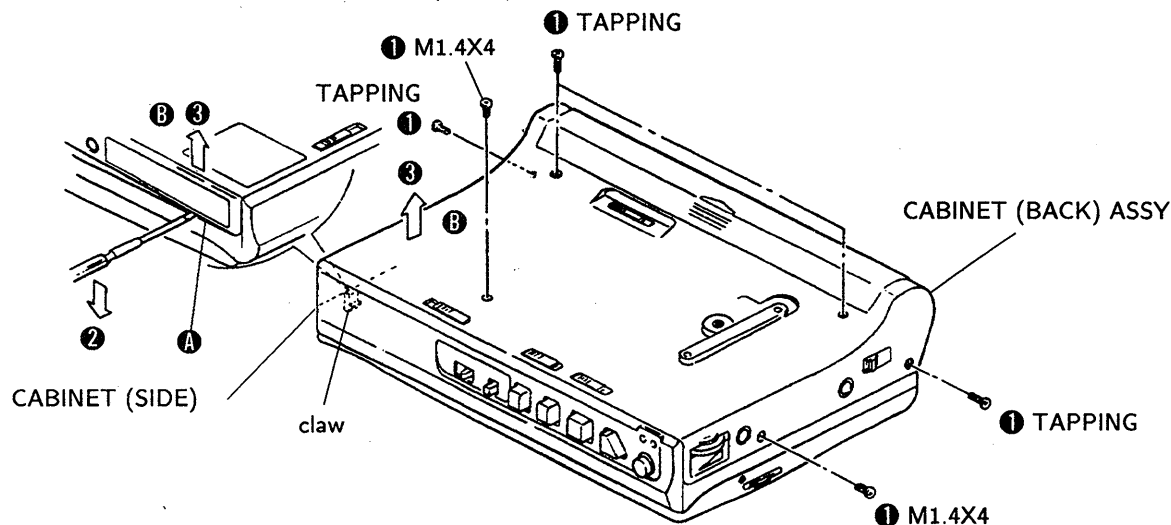
DISASSEMBLY

2-1. CABINET (BACK) ASSY REMOVAL

Follow the removal procedure in the numerical order given.

1. Remove six screws marked ①
2. Insert the precision screw driver (1.4mm flat-brade) in to the slit ① and move the precision screw driver in the direction of arrow marked ② and release the claw from CABINET (SIDE).

3. Lift up ③ side of the CABINET (SIDE) in the direction arrow marked ③ and remove it from the CABINET (BACK) ASSY.



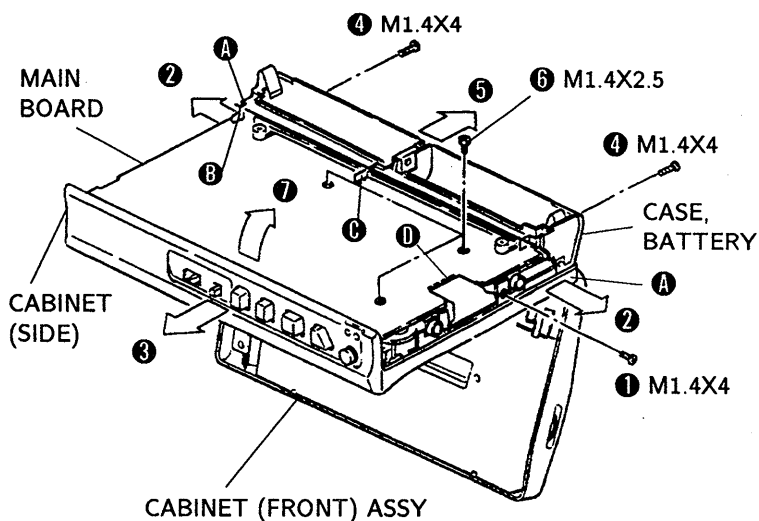
2-2. CABINET (SIDE) REMOVAL

Follow the removal procedure in the numerical order given.

1. Remove one screw M1.4 X 4 marked ①.
2. Open the CABINET (FRONT) ASSY.
3. Hold both side (A position) of CABINET (SIDE) and open in the direction arrow marked ②.

Then, move the CABINET (SIDE) in the direction of arrow marked ③.

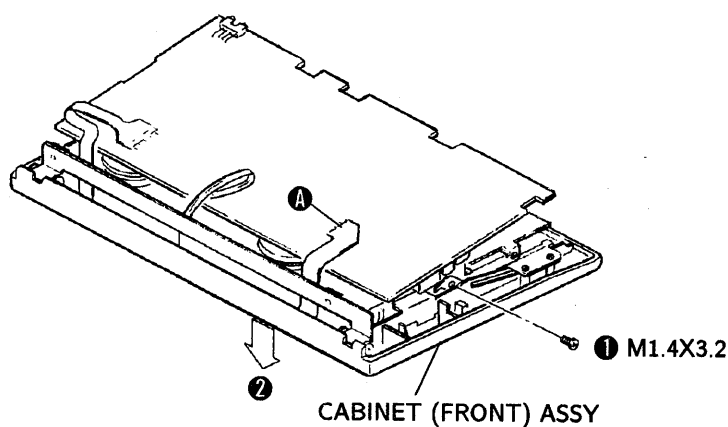
4. Remove two screws M1.4 X 4 marked ④.
5. Remove the solder of ⑥ and ⑥ portion and remove the case, Battery in the direction of arrow marked ⑤ for remove it.
6. Remove three screw M1.4 X 2.5 marked ⑥.
7. Remove the solder of ① portion of flexible cable. Then, the MAIN BOARD can open in the direction of arrow marked ⑦.



2-3. CABINET (FRONT) ASSY REMOVAL

Follow the removal procedure in the numerical order given.

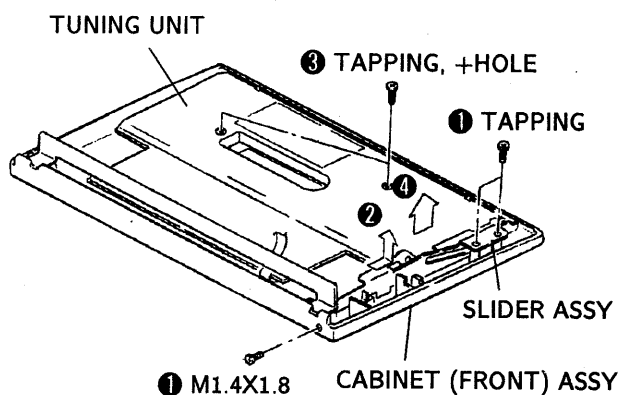
1. Remove one screw 1.4 X 3.2 marked ❶.
2. Remove the solder of portion ❸.
3. Hold the CABINET (FRONT) ASSY and pull it in the direction of arrow marked ❷.



2-4. TUNING UNIT REMOVAL

Follow the removal procedure in the numerical order given.

1. Remove three screws marked ❶.
2. Move the SLIDER ASSY horizontally and lift up in the direction of arrow marked ❷.
3. Remove two screws marked ❸.
4. Lift up the TUNING UNIT in the direction of arrow marked ❹ and remove it.



SECTION 3

ADJUSTMENTS

MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab :

playback head	pinch roller
capstan	rubber belts
- Demagnetize the playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	22 - 38 g-cm (0.31 - 0.52 oz-inch)
FWD Back Tension		1.0 - 3.0 g-cm (0.02 - 0.04 oz-inch)
REV	CQ-102RB	22 - 38 g-cm (0.31 - 0.52 oz-inch)
REV Back Tension		1.0 - 3.0 g-cm (0.02 - 0.04 oz-inch)
FF	CQ-201B	more than 50 g-cm (more than 0.7 oz-inch)
REW		more than 50 g-cm (more than 0.7 oz-inch)

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-403A	more than 50 g (more than 1.77 oz)
REV	CQ-403R	more than 50 g (more than 1.77 oz)

ELECTRICAL ADJUSTMENTS

CASSETTE SECTION

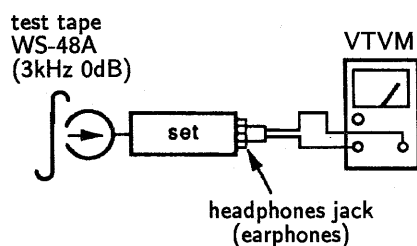
Test Tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	DOLBY level check Tape Speed Adjustment

DOLBY level check

Note : When replacing the head, check DOLBY level both L-ch and R-ch.

Procedure :

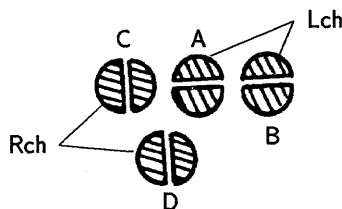


Supplied Voltage 1.3V

- DOLBY NR OFF
- PB EQ NORM
- MODE
- VOLUME MAX
- TAPE/RADIO..... TAPE

- Check the output level at 400Hz of Lch and Rch.
FWD Lch, Rch . . . $24.5\text{mV} \pm 4\text{mV}$
($-30\text{dBm} \pm 1.5\text{dBm}$)

- When the output is not satisfied the above specification shorted DOLBY level short point with the solder.



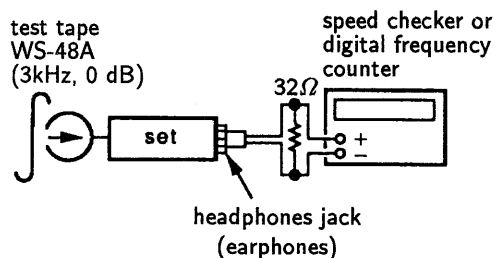
shorted A or C → The output level increase 1.5dB.

shorted B or D → The output level increase 1.0dB.

TAPE SPEED ADJUSTMENTS

Procedure :

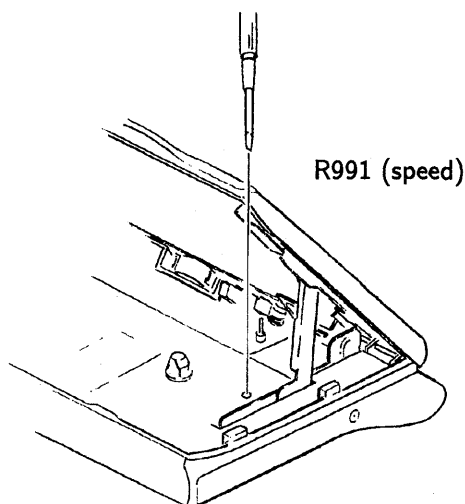
Mode : playback



Specification :

speed checker	digital frequency counter (TAPE END)
+0.5%	3000 — 3,015
—0%	

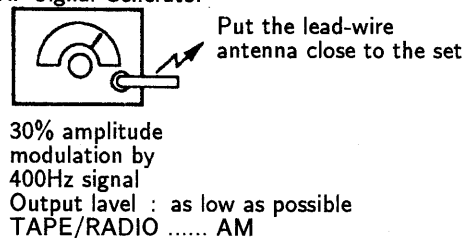
Adjustment Location :



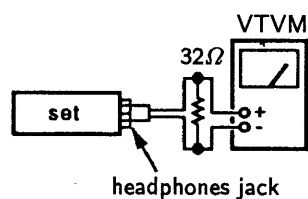
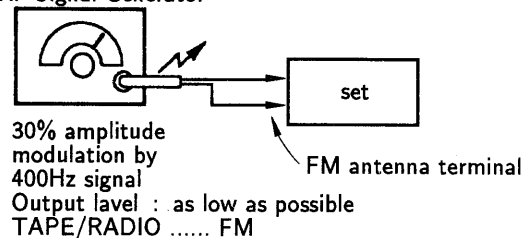
TUNER SECTION

- Supplied Voltage 1.5V

AM RF Signal Generator



FM RF Signal Generator



- Repeat the procedures in each adjustment several times , and the frequency coverage and tracking adjustments should be final done by the trimmer capacitors.

FM IF Alignment

SG and set frequency	Adjustment part	Reading on VTVM
10.7MHz	T001	maximum

FM Frequency Coverage Adjustment

Pointer position	SG frequency	Adjustment part	Reading on VTVM
f minimum	86.5MHz (87.35MHz)	R792	maximum
f maximum	109.5MHz (107.8MHz)	L003	

() : Germany model

FM Tracking Adjustment

SG and set frequency	Adjustment part	Reading on VTVM
86.5MHz (87.35MHz)	L002	maximum
109.5MHz (107.8MHz)	R792	

() : Germany model

AM Frequency Coverage Adjustment

Pointer position	SG frequency	Adjustment part	Reading on VTVM
f minimum	520kHz «520kHz»	R791	maximum
f maximum	1,680kHz «1,750kHz»	C192	

« » : US, Canadian model

AM IF Alignment

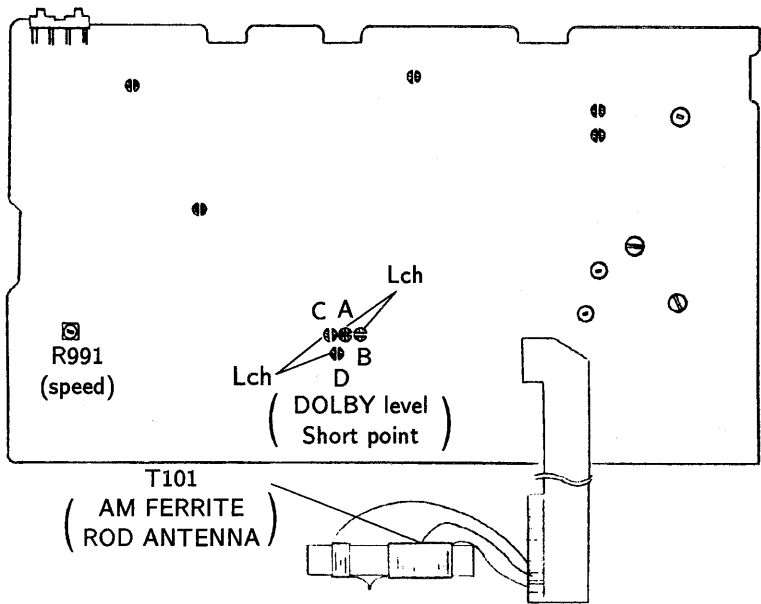
SG frequency	Adjustment part	Reading on VTVM
455kHz	T103	maximum

AM Tracking Adjustment

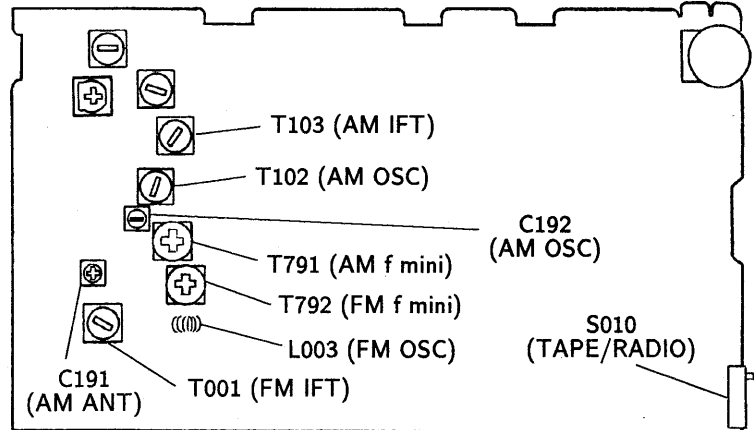
SG and set frequency	Adjustment part	Reading on VTVM
600kHz	T101	maximum
1,400kHz	C191	

Adjustment Location :

【MAIN BOARD】－SIDE A－

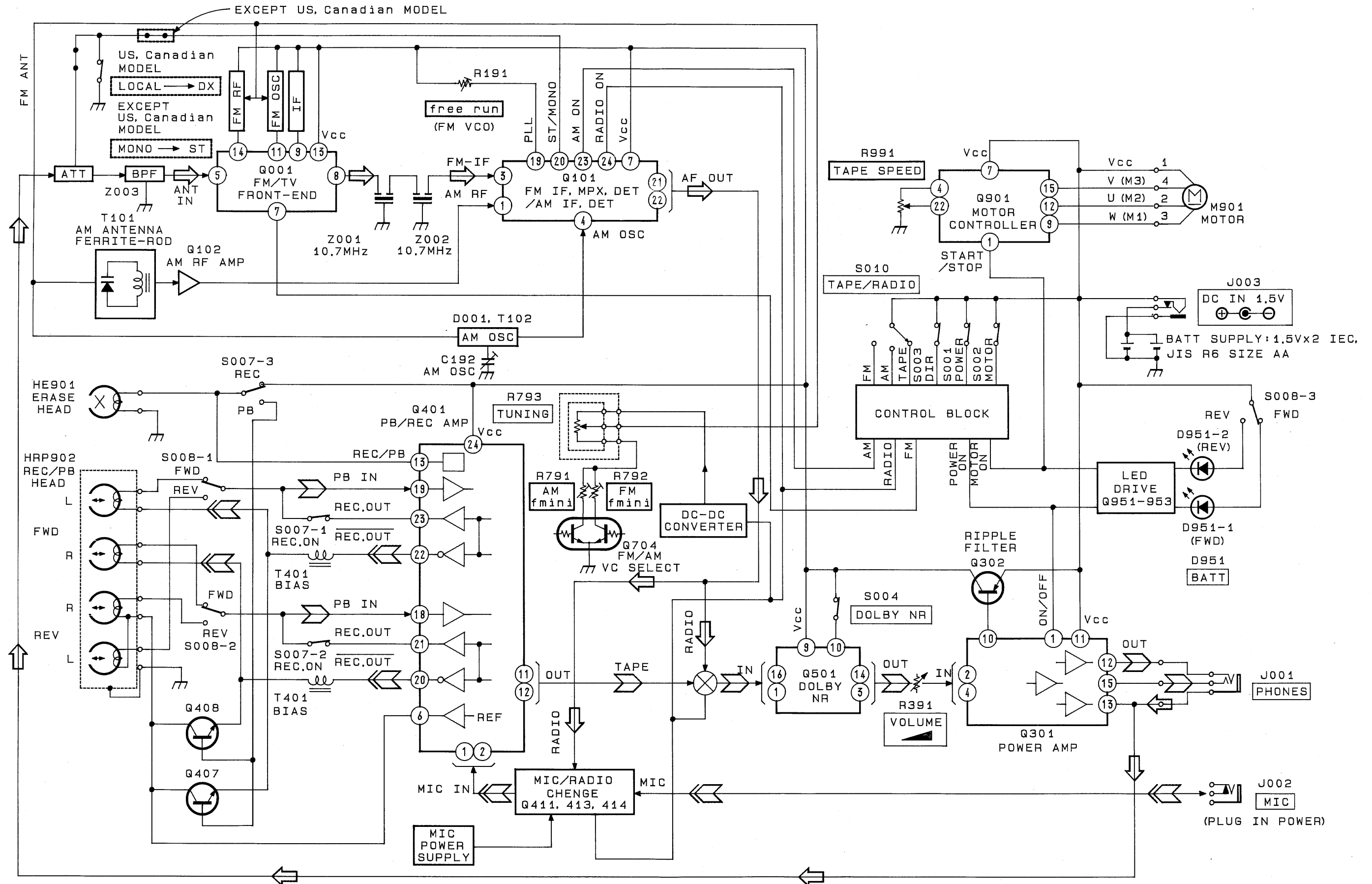


【MAIN BOARD】－SIDE B－



SECTION 4 DIAGRAMS

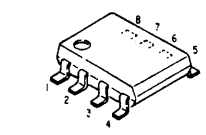
4-1. BLOCK DIAGRAM



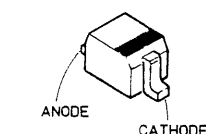
REVISED

4-2. SEMICONDUCTOR LEAD LAYOUTS

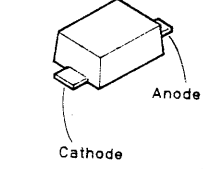
HN1V02H



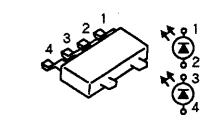
1SV166



1SV222



GL102R5S



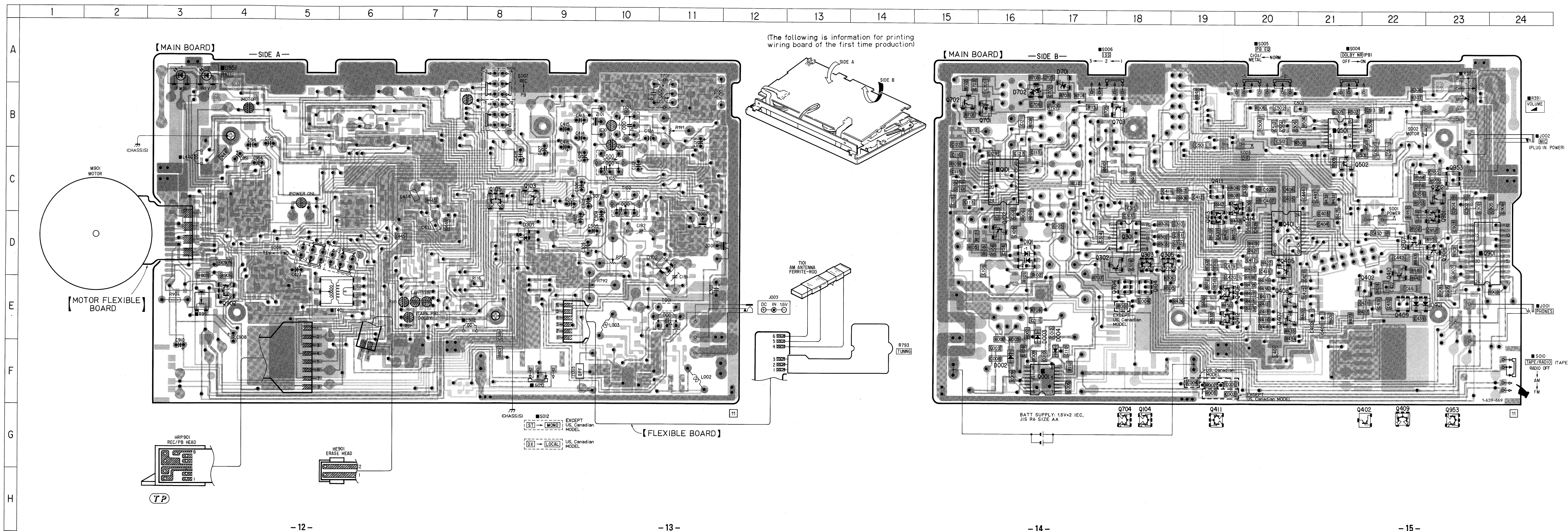
4-3. PRINTED WIRING BOARD (First time production)

● SEMICONDUCTOR LOCATION

Ref. No.	LOCATION	Ref. No.	LOCATION
D002	F-16	Q406	E-19
D003	E-17	Q407	E-20
D004	E-17	Q408	E-20
D101	D-16	Q409	E-22
D102	D-11	Q410	D-22
D301	D-8	Q411	C-19
D401	E-23	Q412	E-19
D701	A-17	Q413	D-19
D702	B-16	Q414	C-20
D951	A-3	Q501	B-21
Q001	F-17	Q502	C-21
Q101	C-16	Q701	B-16
Q102	D-16	Q702	B-15
Q103	C-9	Q703	B-18
Q104	E-18	Q704	E-18
Q105	C-8	Q901	D-24
Q301	D-18	Q902	E-4
Q302	D-18	Q951	D-23
Q303	D-18	Q952	C-23
Q305	D-19	Q953	C-23
Q306	D-23		
Q307	D-22		
Q401	D-20		
Q402	E-22		
Q405	D-20		

Note:

- : indicated a lead wire mounted on the component side.
- : parts mounted on the conductor side.
- : Through hole.
- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.



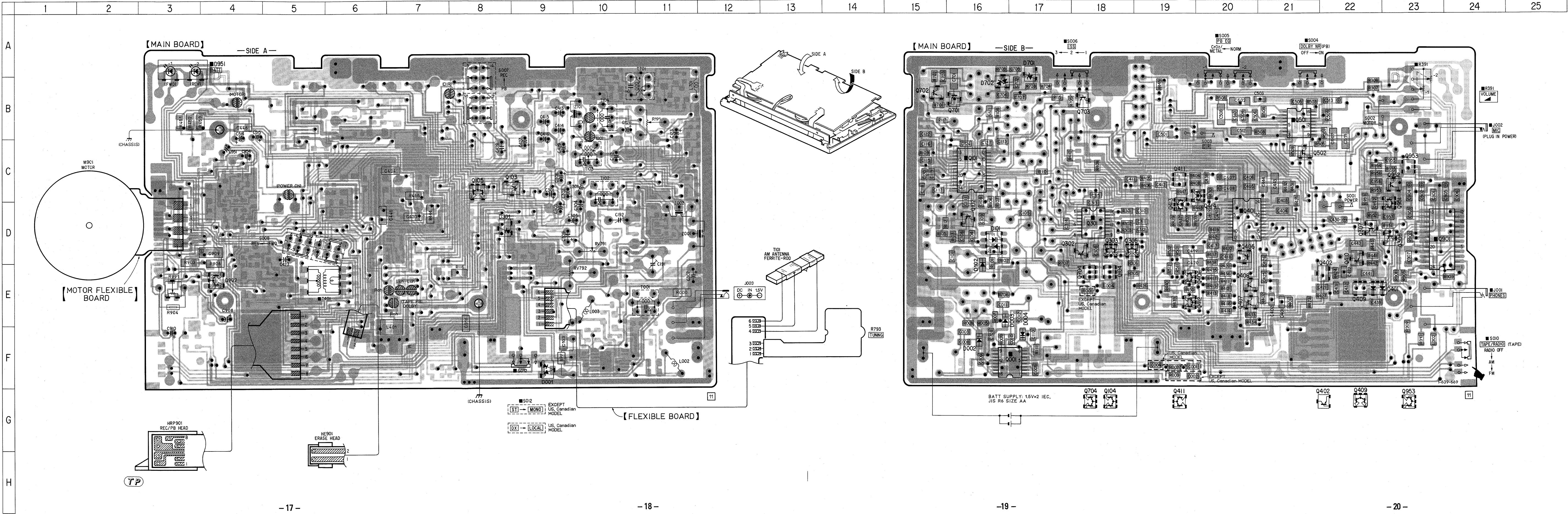
4-4. PRINTED WIRING BOARD
(Second time production)

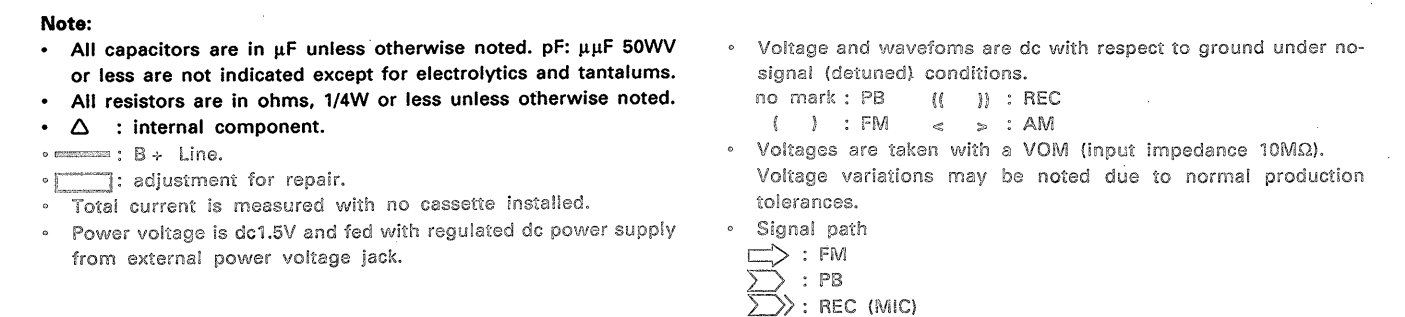
● SEMICONDUCTOR LOCATION

Ref. No.	LOCATION	Ref. No.	LOCATION
D001	F - 9	Q406	E - 19
D002	F - 16	Q407	E - 20
D003	E - 17	Q408	E - 20
D004	E - 17	Q409	E - 22
D101	D - 16	Q410	D - 22
D102	E - 16	Q411	C - 19
D301	D - 8	Q412	E - 19
D401	E - 23	Q413	D - 19
D701	A - 17	Q414	C - 20
D702	B - 16	Q501	B - 21
D951	A - 3	Q502	C - 21
Q001	F - 17	Q701	B - 16
Q101	C - 16	Q702	B - 15
Q102	D - 16	Q703	B - 18
Q103	C - 9	Q704	E - 18
Q104	E - 18	Q901	D - 24
Q105	C - 8	Q902	E - 4
Q301	D - 18	Q951	D - 23
Q302	D - 18	Q952	C - 23
Q303	D - 18	Q953	C - 23
Q305	D - 19		
Q306	D - 23		
Q307	D - 22		
Q401	D - 20		
Q402	E - 22		
Q405	D - 20		

Note:

- : indicated a lead wire mounted on the component side.
- : parts mounted on the conductor side.
- : Through hole.
- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.





EXPLODED VIEWS

NOTE:

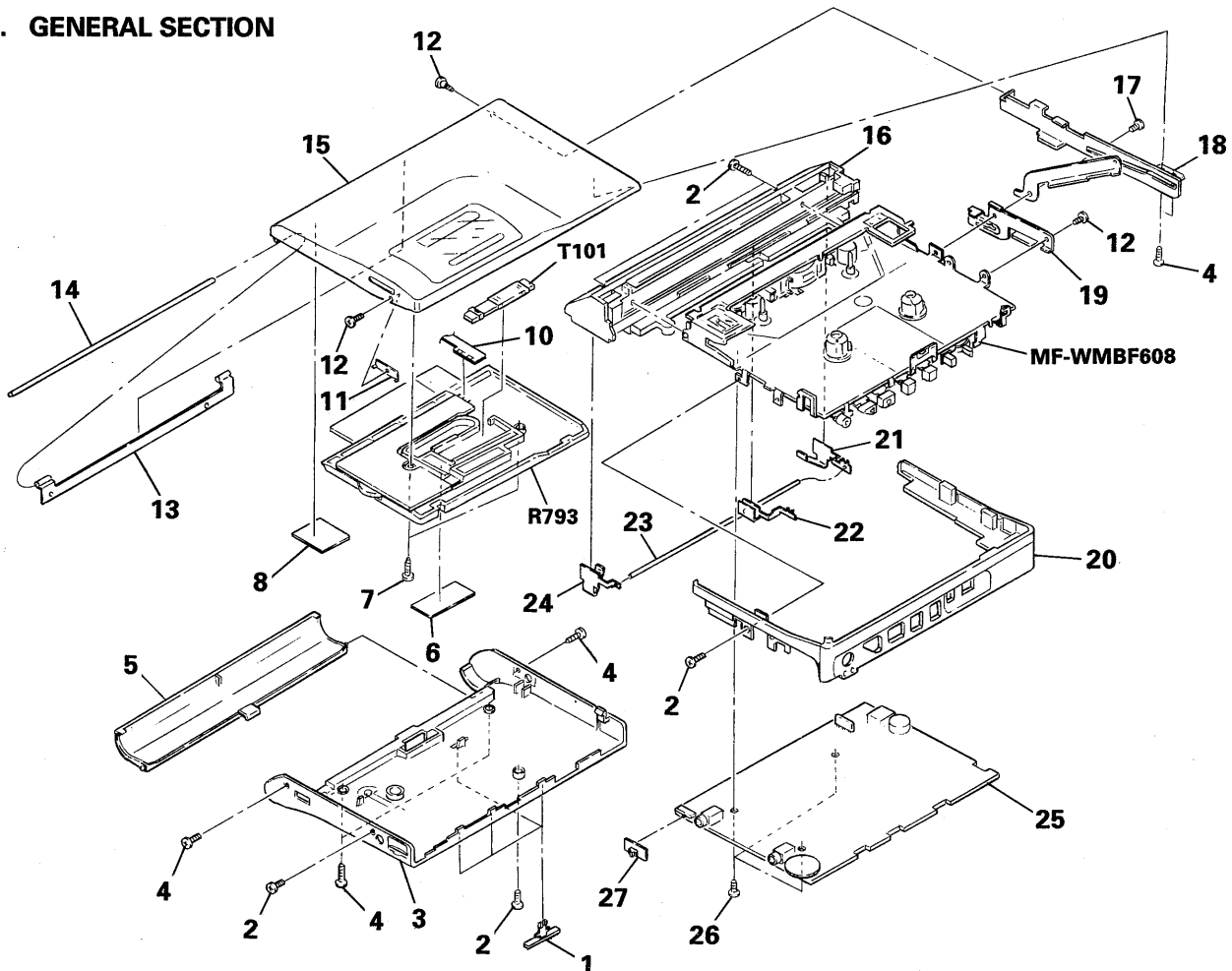
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example:
KNOB,BALANCE(WHITE)...(RED)
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

KNOB,BALANCE(WHITE)...(RED)

↑ ↑

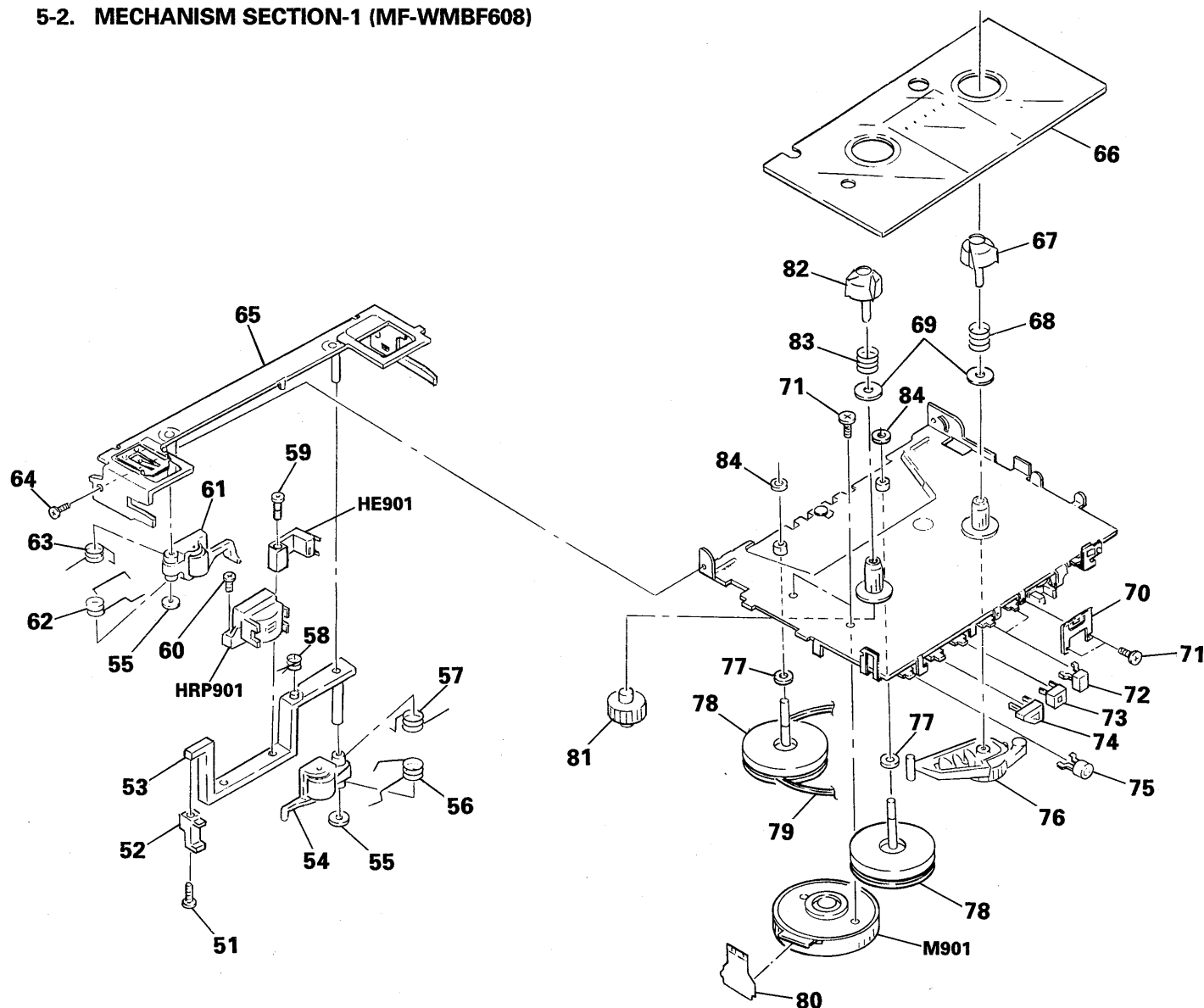
Parts color Cabinet's color

5-1. GENERAL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	3-371-512-01	KNOB, SWITCH		16	3-371-525-01	CASE, BATTERY	
2	3-372-315-01	SCREW (M1.4X4), STEP		17	3-372-313-01	SCREW (M1.4X3.2), STEP	
3	A-3041-612-A	CABINET (BACK) ASSY (E, Germany, UK)		18	X-3363-637-1	SLIDER ASSY	
3	A-3041-613-A	CABINET (BACK) ASSY (US, Canadian)		19	* 3-371-517-01	RAIL	
4	3-372-312-01	TAPPING SCREW		20	3-371-524-01	CABINET (SIDE)	
5	3-371-522-01	LID, BATTERY CASE		21	3-371-508-01	TERMINAL BOARD (LOWER), MINUS	
6	3-371-511-01	SHEET		22	3-371-506-01	TERMINAL BOARD, PLUS	
7	3-394-921-01	SCREW, TAPPING, + HOLE		23	* 3-372-311-01	WIRE, PLATING, TIN	
8	* 3-371-516-01	REINFORCEMENT		24	3-371-507-01	TERMINAL BOARD (UPPER), MINUS	
10	1-640-783-11	PC BOARD, FLEXIBLE		25	A-3016-122-A	PC BOARD ASSY (2), MAIN (E, UK)	
11	3-371-509-01	PLATE, LOCK		25	A-3016-123-A	PC BOARD ASSY (2), MAIN (Germany)	
12	3-372-314-01	SCREW (M1.4X1.8), STEP		25	A-3016-124-A	PC BOARD ASSY (2), MAIN (US, Canadian)	
13	3-371-510-01	PLATE, HINGE		26	3-372-316-01	SCREW (M1.4X2.5), STEP	
14	* 3-372-317-01	SHAFT, HINGE		27	3-371-513-01	KNOB, FUNCTION	
15	A-3041-609-A	CABINET (FRONT) ASSY (E, UK)		R793	1-466-618-11	UNIT, TUNING	
15	A-3041-610-A	CABINET (FRONT) ASSY (Germany)		T101	1-402-582-11	ANTENNA, FERRITE-ROD	
15	A-3041-611-A	CABINET (FRONT) ASSY (US, Canadian)					

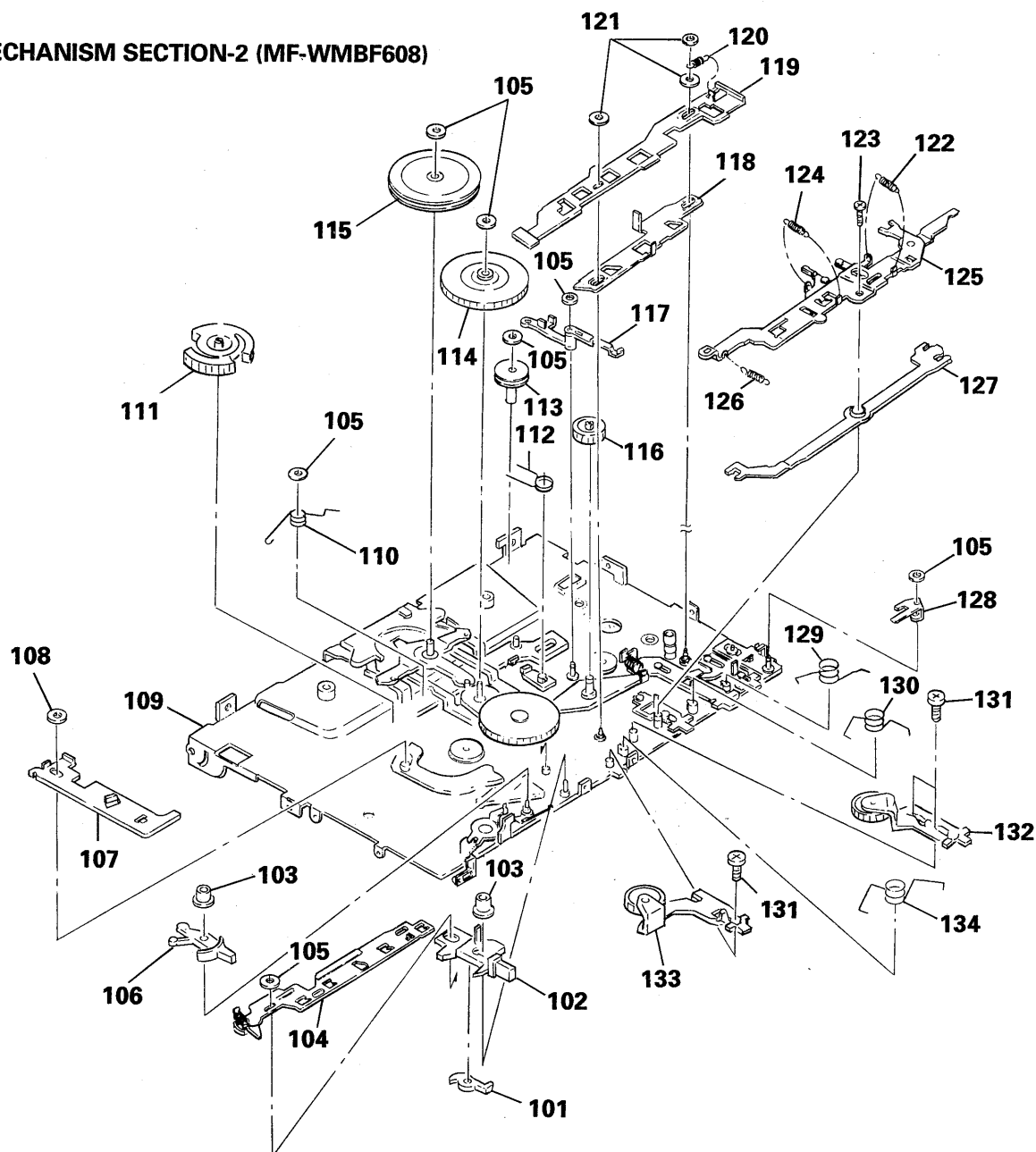
5-2. MECHANISM SECTION-1 (MF-WMBF608)



Ref. No.	Part No.	Description
51	3-348-998-31	SCREW (M1. 4X2. 5), TAPPING, PAN
52	3-344-694-01	GUIDE (RIGHT)
53	3-395-537-01	LEVER (AZ), HEAD
54	X-3395-509-1	PINCH LEVER (R) ASSY
55	3-341-473-01	WASHER (MP)
56	3-348-971-01	SPRING (PINCH N)
57	3-341-468-01	SPRING (R)
58	3-347-205-01	SPRING (HD LEVER), TORSION
59	3-349-890-01	SCREW, TAPPING
60	3-348-998-71	SCREW (M1. 4X4. 5), TAPPING
61	X-3331-036-1	PINCH LEVER (N) ASSY
62	3-395-536-01	SPRING (PINCH R), TORSION
63	3-341-469-01	SPRING (N)
64	3-352-005-01	SCREW(M1. 4X1. 6), PRECISION STEP
65	X-3352-010-1	HOLDER (T. X) ASSY
66	3-354-467-01	COVER, MD
67	3-348-149-01	REEL, SUPPLY
68	3-348-107-01	SPRING, COMPRESSION
69	3-348-990-11	WASHER

Remarks	Ref. No.	Part No.	Description	Remarks
	70	3-395-543-01	SPRING	
	71	3-349-825-01	SCREW	
	72	3-371-521-01	BUTTON (FF/REW)	
	73	3-371-520-01	BUTTON (STOP)	
	74	3-371-519-01	BUTTON (PLAY)	
	75	3-371-518-01	BUTTON (REC)	
	76	X-3348-110-1	LEVER ASSY, PICK UP	
	77	3-354-407-01	WASHER	
	78	X-3352-007-1	WHEEL (X) ASSY, CAPSTAN	
	79	3-349-814-01	BELT	
	80	1-629-873-11	PC BOARD, MOTOR FLEXIBLE	
	81	3-348-151-01	GEAR (TAKE-UP REEL)	
	82	3-348-150-01	REEL, TAKE-UP	
	83	3-348-989-01	SPRING, COMPRESSION	
	84	3-331-007-21	WASHER	
	HE901	1-543-657-11	HEAD, MAGNETIC (ERASW)	
	HRP901	1-543-658-11	HEAD, MAGNETIC (REC/PB)	
	M901	1-541-660-11	MOTOR	

5-3. MECHANISM SECTION-2 (MF-WMBF608)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	3-348-101-01	RATCHET		118	3-395-503-01	SLIDER, SW	
102	3-395-501-01	LEVER, DIR		119	3-395-504-01	SLIDER, REC	
103	3-348-102-01	BUSHING		120	3-395-505-01	SPRING (REC SLIDER), TENSION	
104	X-3395-502-1	SLIDER ASSY, LOCK		121	3-348-953-21	WASHER	
105	3-348-996-01	WASHER		122	3-395-534-01	SPRING, TENSION	
106	3-348-105-01	LEVER, MODE SELECTION		123	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN	
107	3-352-002-02	LEVER (X), TRIGGER		124	3-395-535-01	SPRING, TENSION	
108	3-348-953-11	WASHER		125	X-3395-503-1	BRACKET ASSY, EJECT	
109	X-3395-501-1	CHASSIS COMPLETE ASSY		126	3-395-508-01	SPRING, TENSION	
110	3-348-172-03	SPRING (S. OFF), TORSION		127	3-395-507-01	LEVER, REC SW	
111	3-352-032-01	GEAR (X), CAM		128	3-395-542-01	LEVER (B), REC	
112	3-348-159-01	SPRING (NR), TORSION		129	3-395-506-01	SPRING (LOCK SLIDER), TORSION	
113	3-352-008-01	PULLEY (REVERSE X)		130	3-348-103-01	SPRING (PLAY), TORSION	
114	X-3352-027-3	CLUTCH (X) ASSY		131	3-348-160-01	SCREW	
115	3-352-007-01	PULLEY (MIDWAY X)		132	X-3352-004-1	LEVER (X) ASSY, FF	
116	3-352-021-01	GEAR (N.X)		133	X-3352-005-1	LEVER (X) ASSY, REW	
117	3-395-509-01	LEVER, NR		134	3-395-577-01	SPRING (FR), TORSION	

SECTION 6

ELECTRICAL PARTS LIST

MAIN

NOTE:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable

- Items marked "***" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	A-3016-122-A	PC BOARD ASSY (2), MAIN (E, UK)		C112	1-126-157-11	ELECT 10uF	20% 16V
	A-3016-123-A	PC BOARD ASSY (2), MAIN (AEP)		C113	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	A-3016-124-A	PC BOARD ASSY (2), MAIN (US, Canadian)		C115	1-163-035-00	CERAMIC CHIP 0.047uF	50V
	*****			C116	1-163-833-00	CERAMIC CHIP 0.068uF	25V
	1-241-652-11	RES, ADJ, CARBON		C117	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	1-410-993-11	INDUCTOR, CHIP 1uH		C118	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	1-571-275-31	SWITCH, SLIDE		C119	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
	1-571-506-41	SWITCH, SLIDE		C120	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
	1-571-585-11	SWITCH, PUSH (1 KEY)		C121	1-163-139-00	CERAMIC CHIP 820PF	5% 50V
	1-572-039-11	SWITCH, SLIDE		C122	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	8-719-018-74	DIODE 1SV166		C123	1-124-465-00	ELECT 0.47uF	20% 50V
	8-719-800-76	DIODE 1SS226		C124	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
	8-729-011-30	TRANSISTOR FMA6		C126	1-126-157-11	ELECT 10uF	20% 16V
	8-729-011-31	TRANSISTOR FMG6		C127	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	8-729-202-38	TRANSISTOR 2SC3326N		C191	1-141-405-11	CAP, ADJ	
	8-729-230-49	TRANSISTOR 2SC2712-G		C192	1-141-405-11	CAP, ADJ	
	8-729-903-10	TRANSISTOR FMW1		C301	1-126-163-11	ELECT 4.7uF	20% 50V
	8-729-903-29	TRANSISTOR DTA144TK		C302	1-126-163-11	ELECT 4.7uF	20% 50V
	< CAPACITOR >			C303	1-126-163-11	ELECT 4.7uF	20% 50V
C001	1-163-117-00	CERAMIC CHIP 100pF 5% 50V (US, Canadian)		C304	1-124-430-00	ELECT 22uF	20% 4V
C002	1-163-117-00	CERAMIC CHIP 100PF 5% 50V (E, AEP, UK)		C305	1-126-163-11	ELECT 4.7uF	20% 50V
C003	1-163-095-00	CERAMIC CHIP 12PF 5% 50V		C306	1-124-430-00	ELECT 22uF	20% 4V
C004	1-163-117-00	CERAMIC CHIP 100pF 5% 50V (US, Canadian)		C307	1-128-413-11	ELECT 820uF	20% 2V
C005	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		C308	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C008	1-163-606-11	CERAMIC CHIP 100PF 5% 50V		C309	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C009	1-164-232-11	CERAMIC CHIP 0.01uF 50V		C310	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C010		3PF 50V		C311	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C011	1-163-606-11	CERAMIC CHIP 100PF 5% 50V		C312	1-164-005-11	CERAMIC CHIP 0.47uF	25V
C012	1-163-093-00	CERAMIC CHIP 10PF 5% 50V		C313	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C013	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		C314	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C101	1-164-232-11	CERAMIC CHIP 0.01uF 50V		C315	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C101	1-162-934-11	CERAMIC CHIP 3PF 0.25PF 50V		C316	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C104	1-164-232-11	CERAMIC CHIP 0.01uF 50V		C401	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C105	1-163-131-00	CERAMIC CHIP 390PF 5% 50V		C402	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C106	1-163-038-00	CERAMIC CHIP 0.1uF 25V		C403	1-163-035-00	CERAMIC CHIP 0.047uF	50V
C108	1-164-232-11	CERAMIC CHIP 0.01uF 50V		C404	1-163-035-00	CERAMIC CHIP 0.047uF	50V
C109	1-163-038-00	CERAMIC CHIP 0.1uF 25V		C405	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C110	1-163-038-00	CERAMIC CHIP 0.1uF 25V		C406	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C111	1-163-038-00	CERAMIC CHIP 0.1uF 25V		C407	1-135-091-00	TANTALUM CHIP 1uF	20% 16V
				C408	1-135-091-00	TANTALUM CHIP 1uF	20% 16V

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C409	1-162-974-11	CERAMIC CHIP 0.01uF	50V	C705	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C410	1-162-974-11	CERAMIC CHIP 0.01uF	50V	C706	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C411	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C707	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C412	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C708	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C413	1-128-412-11	ELECT 47uF	20% 2V	C901	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C414	1-128-412-11	ELECT 47uF	20% 2V	C902	1-135-187-21	TANTAL. CHIP 2.2uF	10% 4V
C415	1-126-301-11	ELECT 1uF	20% 50V	C903	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C416	1-126-301-11	ELECT 1uF	20% 50V	C904	1-135-187-21	TANTAL. CHIP 2.2uF	10% 4V
C417	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C905	1-135-187-21	TANTAL. CHIP 2.2uF	10% 4V
C418	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C906	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C419	1-162-611-00	CERAMIC CHIP 1uF	25V	C907	1-164-330-21	CERAMIC CHIP 0.22uF	10% 16V
C420	1-162-611-00	CERAMIC CHIP 1uF	25V	C908	1-126-301-11	ELECT 1uF	20% 50V
C421	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	C909	1-135-187-21	TANTAL. CHIP 2.2uF	10% 4V
C422	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	C910	1-124-430-00	ELECT 22uF	20% 4V
C423	1-135-201-11	TANTALUM CHIP 10uF	20% 4V	C951	1-124-430-00	ELECT 22uF	20% 4V
C425	1-164-182-11	CERAMIC CHIP 0.0033uF	10% 50V	C952	1-164-222-11	CERAMIC CHIP 0.22uF	25V
C426	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	C953	1-164-222-11	CERAMIC CHIP 0.22uF	25V
C427	1-128-412-11	ELECT 47uF	20% 2V	C954	1-126-157-11	ELECT 10uF	20% 16V
C428	1-128-411-11	ELECT 220uF	20% 2V	C955	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C429	1-124-430-00	ELECT 22uF	20% 4V	C956	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C430	1-135-157-21	TANTALUM CHIP 10uF	20% 6.3V	C957	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C431	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V	(DIODE)			
C432	1-163-033-00	CERAMIC CHIP 0.022uF	50V	D001	8-719-800-76	DIODE 1SS226	
C433	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	D002	8-719-018-74	DIODE 1SV166	
C434	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	D003	8-719-018-74	DIODE 1SV166	
C437	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	D004	8-719-018-75	DIODE 1SV222	
C438	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	D101	8-719-018-76	DIODE HN1V02H	
C439	1-163-038-00	CERAMIC CHIP 0.1uF	25V	D102	8-719-016-74	DIODE 1SS352	
C441	1-162-611-00	CERAMIC CHIP 1uF	25V	D102	8-719-800-76	DIODE 1SS226	
C442	1-162-611-00	CERAMIC CHIP 1uF	25V	D301	8-719-018-78	DIODE 02C23.9	
C443	1-162-611-00	CERAMIC CHIP 1uF	25V	D401		DIODE RB471	
C444	1-162-611-00	CERAMIC CHIP 1uF	25V	D701	8-719-018-77	DIODE 02C210Y	
C445	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	D702	8-719-800-76	DIODE 1SS226	
C446	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	D951	8-719-970-41	DIODE GL102R5S	
C501	1-162-611-00	CERAMIC CHIP 1uF	25V	(JACK)			
C502	1-162-611-00	CERAMIC CHIP 1uF	25V	J001	1-568-254-33	JACK 1P (PHONES)	
C503	1-163-020-00	CERAMIC CHIP 0.0082uF	10% 50V	J002	1-569-262-33	JACK 1P (MIC)	
C504	1-163-020-00	CERAMIC CHIP 0.0082uF	10% 50V	J003	1-507-951-11	JACK, EXTERNAL POWER (DC IN 1.5V)	
C505	1-164-182-11	CERAMIC CHIP 0.0033uF	10% 50V	(COIL)			
C506	1-164-182-11	CERAMIC CHIP 0.0033uF	10% 50V	L002	* 1-428-232-21	COIL, AIR-CORE	
C507	1-162-611-00	CERAMIC CHIP 1uF	25V	L003	* 1-428-232-11	COIL, AIR-CORE	
C508	1-162-611-00	CERAMIC CHIP 1uF	25V	L004	1-410-993-11	INDUCTOR, CHIP 1uH	
C509	1-164-232-11	CERAMIC CHIP 0.01uF	50V	L301	1-412-144-11	INDUCTOR, SMALL TYPE 10uH	
C510	1-164-232-11	CERAMIC CHIP 0.01uF	50V	L302	1-410-993-11	INDUCTOR, CHIP 1uH	
C511	1-162-610-00	CERAMIC CHIP 0.47uF	25V	L401	1-414-039-11	INDUCTOR, SMALL TYPE 100uH	
C512	1-162-610-00	CERAMIC CHIP 0.47uF	25V	L402		INDUCTOR, 20uH	
C513	1-135-151-21	TANTALUM CHIP 4.7uF	20% 4V	L701	1-412-145-11	INDUCTOR, SMALL TYPE 100uH	
C514	1-126-163-11	ELECT 4.7uF	20% 50V				
C515	1-124-430-00	ELECT 22uF	20% 4V				
C701	1-162-611-00	CERAMIC CHIP 1uF	25V				
C702	1-164-005-11	CERAMIC CHIP 0.47uF	25V				
C703	1-163-007-11	CERAMIC CHIP 680PF	10% 50V				

When indicating parts by reference number, please include the board name.

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< TRANSISTOR >				R108	1-216-833-11	METAL CHIP 10K 5%	1/16W
Q001	8-759-245-96	IC TA8182FN		R109	1-216-821-11	METAL CHIP 1K 5%	1/16W
Q101	8-759-231-03	IC TA8153FN		R110	1-216-849-11	METAL CHIP 220K 5%	1/16W
Q102	8-729-230-49	TRANSISTOR 2SC2712-YG		R111	1-216-845-11	METAL CHIP 100K 5%	1/16W
Q103	8-729-903-30	TRANSISTOR DTC144TK		R112	1-216-831-11	METAL CHIP 6.8K 5%	1/16W
Q104	8-729-924-79	TRANSISTOR FMG8		R115	1-216-827-11	METAL CHIP 3.3K 5%	1/16W
Q105	8-729-903-10	TRANSISTOR FMW1		R116	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q301	8-759-231-13	IC TA8145FN		R117	1-216-843-11	METAL CHIP 68K 5%	1/16W
Q302	8-729-230-69	TRANSISTOR 2SA1362G		R191	1-241-662-11	RES, ADJ, CARBON 20K (free run)	
Q303	8-729-011-30	TRANSISTOR FMA6		R301	1-216-791-11	METAL CHIP 3.3 5%	1/16W
Q305	8-729-011-31	TRANSISTOR FMG6		R302	1-216-791-11	METAL CHIP 3.3 5%	1/16W
Q306	8-729-903-29	TRANSISTOR DTA144TK		R303	1-216-791-11	METAL CHIP 3.3 5%	1/16W
Q307	8-729-900-52	TRANSISTOR DTC114YK		R305	1-216-827-11	METAL CHIP 3.3K 5%	1/16W
Q401	8-752-036-56	IC CXA1010N		R306	1-216-837-11	METAL CHIP 22K 5%	1/16W
Q402	8-729-011-54	TRANSISTOR 2SC3265		R307	1-216-817-11	METAL CHIP 470 5%	1/16W
Q405	8-729-923-54	TRANSISTOR DTA143TK		R308	1-216-817-11	METAL CHIP 470 5%	1/16W
Q406	8-729-903-10	TRANSISTOR FMW1		R391	1-241-651-11	RES, ADJ, CARBON (VOLUME)	
Q407	8-729-202-38	TRANSISTOR 2SC3326N-A		R401	1-216-831-11	METAL CHIP 6.8K 5%	1/16W
Q408	8-729-202-38	TRANSISTOR 2SC3326N-A		R402	1-216-831-11	METAL CHIP 6.8K 5%	1/16W
Q409	8-729-903-10	TRANSISTOR FMW1		R403	1-216-831-11	METAL CHIP 6.8K 5%	1/16W
Q410	8-729-230-49	TRANSISTOR 2SC2712-YG		R404	1-216-831-11	METAL CHIP 6.8K 5%	1/16W
Q411	8-729-011-30	TRANSISTOR FMA6		R405	1-216-853-11	METAL CHIP 470K 5%	1/16W
Q412	8-729-011-31	TRANSISTOR FMG6		R406	1-216-853-11	METAL CHIP 470K 5%	1/16W
Q413	8-729-903-10	TRANSISTOR FMW1		R407	1-216-845-11	METAL CHIP 100K 5%	1/16W
Q414	8-729-903-10	TRANSISTOR FMW1		R408	1-216-845-11	METAL CHIP 100K 5%	1/16W
Q501	8-759-230-88	IC TA7793FN		R409	1-216-820-11	METAL CHIP 820 5%	1/16W
Q502	8-729-903-29	TRANSISTOR DTA144TK		R410	1-216-820-11	METAL CHIP 820 5%	1/16W
Q701	8-729-230-49	TRANSISTOR 2SC2712-YG		R411	1-216-846-11	METAL CHIP 120K 5%	1/16W
Q702	8-729-230-49	TRANSISTOR 2SC2712-YG		R412	1-216-846-11	METAL CHIP 120K 5%	1/16W
Q703	8-729-230-49	TRANSISTOR 2SC2712-YG		R413	1-218-482-11	METAL GLAZE 430 5%	1/16W
Q704	8-729-011-31	TRANSISTOR FMG6		R414	1-218-482-11	METAL GLAZE 430 5%	1/16W
Q901	8-759-821-20	IC LB1672M		R415	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
Q902	8-729-903-10	TRANSISTOR FMW1		R416	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
Q951	8-729-903-10	TRANSISTOR FMW1		R417	1-216-824-11	METAL CHIP 1.8K 5%	1/16W
Q952	8-729-230-49	TRANSISTOR 2SC2712-YG		R418	1-216-824-11	METAL CHIP 1.8K 5%	1/16W
Q953	8-729-011-29	TRANSISTOR FMG3		R419	1-216-835-11	METAL CHIP 15K 5%	1/16W
< RESISTOR >				R420	1-216-835-11	METAL CHIP 15K 5%	1/16W
R000	1-216-295-00	METAL CHIP 0 5%	1/10W	R421	1-216-851-11	METAL CHIP 330K 5%	1/16W
R001	1-216-864-11	METAL CHIP 0	(E, AEP, UK)	R422	1-216-851-11	METAL CHIP 330K 5%	1/16W
R002	1-216-819-11	METAL GLAZE 680 5%	1/ W(US, Canadian)	R423	1-216-827-11	METAL CHIP 3.3K 5%	1/16W
R003	1-216-864-11	METAL CHIP 0	(E, AEP, UK)	R424	1-216-789-11	METAL CHIP 2.2 5%	1/16W
R005	1-216-845-11	METAL CHIP 100K 5%	1/16W	R425	1-216-821-11	METAL CHIP 1K 5%	1/16W
R007	1-216-845-11	METAL CHIP 100K 5%	1/16W	R426	1-216-857-11	METAL CHIP 1M 5%	1/16W
R008	1-216-837-11	METAL CHIP 22K 5%	1/16W	R427	1-216-805-11	METAL CHIP 47 5%	1/16W
R009	1-216-797-11	METAL CHIP 10 5%	1/16W	R429	1-216-833-11	METAL CHIP 10K 5%	1/16W
R101	1-216-845-11	METAL CHIP 100K 5%	1/16W	R430	1-216-833-11	METAL CHIP 10K 5%	1/16W
R102	1-216-845-11	METAL CHIP 100K 5%	1/16W	R431	1-216-840-11	METAL CHIP 39K 5%	1/16W
R103	1-216-849-11	METAL CHIP 220K 5%	1/16W	R432	1-216-840-11	METAL CHIP 39K 5%	1/16W
R105	1-216-821-11	METAL CHIP 1K 5%	1/16W	R433	1-216-845-11	METAL CHIP 100K 5%	1/16W
R106	1-216-809-11	METAL CHIP 100 5%	1/16W	R434	1-216-845-11	METAL CHIP 100K 5%	1/16W
R107	1-216-827-11	METAL CHIP 3.3K 5%	1/16W	R435		METAL CHIP 27K 5%	1/16W
				R436		METAL CHIP 27K 5%	1/16W

When indicating parts by reference number, please include the board name.

REVISED

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R437	1-216-836-11	METAL CHIP	18K 5% 1/16W			< SWITCH >	
R438	1-216-836-11	METAL CHIP	18K 5% 1/16W				
R439	1-216-790-11	METAL GLAZE	2.7 5% 1/16W				
R440	1-216-790-11	METAL GLAZE	2.7 5% 1/16W				
R441			27K 5%				
R442	1-216-844-11	METAL CHIP	82K 5% 1/16W				
R443	1-216-809-11	METAL CHIP	100 5% 1/16W				
R444	1-216-081-00	METAL CHIP	22K 5% 1/10W				
R445	1-216-097-00	METAL CHIP	100K 5% 1/10W				
R447	1-216-833-11	METAL CHIP	10K 5% 1/16W				
R448	1-216-833-11	METAL CHIP	10K 5% 1/16W				
R449	1-216-817-11	METAL CHIP	470 5% 1/16W				
R450	1-216-817-11	METAL CHIP	470 5% 1/16W				
R451	1-216-049-00	METAL CHIP	1k 5% 1/10W				
R452	1-216-049-00	METAL CHIP	1k 5% 1/10W				
R453	1-216-295-00	METAL CHIP	0 5% 1/10W				
R501	1-216-836-11	METAL CHIP	18K 5% 1/16W				
R502	1-216-836-11	METAL CHIP	18K 5% 1/16W				
R503	1-216-839-11	METAL CHIP	33K 5% 1/16W				
R504	1-216-839-11	METAL CHIP	33K 5% 1/16W				
R505	1-216-994-11	METAL GLAZE	13K 5% 1/16W				
R506	1-216-994-11	METAL GLAZE	13K 5% 1/16W				
R507	1-216-852-11	METAL CHIP	390K 5% 1/16W				
R508	1-216-852-11	METAL CHIP	390K 5% 1/16W				
R509	1-216-836-11	METAL CHIP	18K 5% 1/16W				
R511	1-216-844-11	METAL CHIP	82K 5% 1/16W				
R512	1-216-844-11	METAL CHIP	82K 5% 1/16W				
R701	1-216-835-11	METAL CHIP	15K 5% 1/16W				
R702	1-216-835-11	METAL CHIP	15K 5% 1/16W				
R703	1-216-821-11	METAL CHIP	1K 5% 1/16W				
R704	1-216-833-11	METAL CHIP	10K 5% 1/16W				
R705	1-216-851-11	METAL CHIP	330K 5% 1/16W				
R706	1-216-853-11	METAL GLAZE	470k 5% 1/16W				
R707	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R708	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R791	1-241-652-11	RES, ADJ, CARBON (AM f mini)					
R792	1-241-652-11	RES, ADJ, CARBON (FM f mini)					
R901	1-216-821-11	METAL CHIP	1K 5% 1/16W				
R902	1-216-815-11	METAL CHIP	330 5% 1/16W				
R903	1-216-105-00	METAL CHIP	220K 5% 1/10W				
R904	1-809-521-11	THERMISTOR, POSITIVE					
R905	1-216-790-11	METAL GLAZE	2.7 5% 1/16W				
R906	1-216-077-00	METAL CHIP	15K 5% 1/10W				
R909	1-216-833-11	METAL CHIP	10K 5% 1/16W				
R951	1-216-837-11	METAL CHIP	22K 5% 1/16W				
R952	1-216-813-11	METAL CHIP	220 5% 1/16W				
R953	1-216-813-11	METAL CHIP	220 5% 1/16W				
R954	1-216-837-11	METAL CHIP	22K 5% 1/16W				
R955	1-216-809-11	METAL CHIP	100 5% 1/16W				
R956	1-216-831-11	METAL CHIP	6.8K 5% 1/16W				
R991	1-241-650-11	RES, ADJ, CARBON					
S001	1-571-585-11	SWITCH, PUSH (1 KEY) (POWER)					
S002	1-571-585-11	SWITCH, PUSH (1 KEY) (MOTOR)					
S003	1-571-585-11	SWITCH, PUSH (1 KEY) (DIR)					
S004	1-571-275-31	SWITCH, SLIDE (DOLBY NR)					
S005	1-571-277-31	SWITCH, SLIDE (PB EQ)					
S006	1-571-506-41	SWITCH, SLIDE (ISS)					
S007	1-572-039-11	SWITCH, SLIDE (PB/REC)					
S008	1-572-039-11	SWITCH, SLIDE (FWD/REV)					
S010	1-571-506-41	SWITCH, SLIDE (TAPE/RADIO)					
S012	1-571-275-31	SWITCH, SLIDE (ST/MONO, DX/LOCAL)					
T001	1-404-987-11	TRANSFORMER, IF (FM IFT)					
T102	1-404-985-11	TRANSFORMER, IF (AM OSC)					
T103	1-404-986-11	TRANSFORMER, IF (AM IFT)					
T104	1-404-987-11	TRANSFORMER, IF (FM DET)					
T401	1-433-388-11	TRANSFORMER, BIAS OSCILLATOR					
T701	1-404-984-11	TRANSFORMER, IF (DC-DC CON)					
Z001	1-579-476-11	FILTER, CERAMIC					
Z002	1-579-476-11	FILTER, CERAMIC					
Z003	1-239-175-11	FILTER, BAND PASS					
Z101	1-579-475-11	FILTER, CERAMIC					

MISCELLANEOUS							

10	1-640-783-11	PC BOARD, FLEXIBLE					
80	1-629-873-11	PC BOARD, MOTOR FLEXIBLE					
HE901	1-543-657-11	HEAD, MAGNETIC (ERASW)					
HRP901	1-543-658-11	HEAD, MAGNETIC (REC/PB)					
M901	1-541-660-11	MOTOR					
R793	1-466-618-11	UNIT, TUNING					
T101	1-402-582-11	ANTENNA, FERRITE-ROD					

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remarks
		ACCESSORIES & PACKING MATERIALS	

	1-542-116-11	MICROPHONE	
	3-325-290-31	WASHER, STOPPER	
*	3-367-990-01	CUSHION (UPPER)	
*	3-367-991-01	CUSHION (LOWER)	
*	3-367-992-01	INDIVIDUAL CARTON (US, Canadian)	
*	3-367-994-01	INDIVIDUAL CARTON (AEP, UK)	
*	3-367-995-01	INDIVIDUAL CARTON (E)	
	3-753-258-11	MANUAL, INSTRUCTION	
		(E, AEP, UK) (ENGLISH/FRENCH)	
	3-753-258-21	MANUAL, INSTRUCTION	
		(US, Canadian) (ENGLISH/FRENCH)	
	3-753-258-41	MANUAL, INSTRUCTION	
		(E, AEP) (SPANISH/PORTUGUESE)	
	3-753-258-51	MANUAL, INSTRUCTION (AEP) (GERMAN/DUTCH)	
	3-753-258-61	MANUAL, INSTRUCTION	
		(AEP) (SWEDISH/ITALIAN)	
	8-953-400-90	HEADPHONE MDR-E552//K SET (E)	
	8-953-415-90	HEADPHONE MDR-14A SET (EXCEPT E)	
	9-911-839-XX	CUSHION, LOCK PLATE	
	X-3336-715-1	STAND ASSY, MICROPHONE	
	X-3352-016-1	CLIP ASSY, BELT	

When indicating parts by reference number, please include the board name.

